

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION

ORDER NO. 81-12

ENFORCEMENT ORDER FOR ISSUANCE OF A TIME SCHEDULE

ORDER DIRECTING CITY OF SUNNYVALE TO COMPLY WITH  
REQUIREMENTS PRESCRIBED BY THE CALIFORNIA REGIONAL  
WATER QUALITY CONTROL BOARD, SAN FRANCISCO BAY  
REGION, IN ORDER NO. 77-94 (NPDES PERMIT NO. CA0037621)

The California Regional Water Quality Control Board (hereinafter Board),  
San Francisco Bay Region, finds that:

1. This Board adopted Order No. 77-94 on July 19, 1977, prescribing waste discharge requirements for the City of Sunnyvale (hereinafter discharger). Order No. 77-94 contains a compliance time schedule prohibiting the present and future discharge of wastes to waters of South San Francisco Bay or its tributaries south of Dumbarton Bridge. This discharge prohibition implements the Board's adopted Water Quality Control Plan for San Francisco Bay Basin and the State Board Policy for Enclosed Bays and Estuaries. This prohibition contained in Order No. 77-94 has not been met.
2. The discharger and the Cities of San Jose, Santa Clara, and Palo Alto are members of the joint powers authority named the South Bay Dischargers Authority (SBDA). The SBDA is the lead agency for the construction of necessary disposal facilities, such as the Basin Plan Alternative (a joint outfall north of Dumbarton Bridge), for all three member agencies and has prepared a final Environmental Impact Statement (EIS) for the proposed project.
3. This Board adopted Order No. 79-167 on December 18, 1979, prescribing a revised partial compliance time schedule for compliance with the prohibition of discharge of wastes to waters of San Francisco Bay or its tributaries south of the Dumbarton Bridge. The Board specifically directed the discharger (as a SBDA member) to submit their final EIR/EIS and compliance time schedule to comply with the prohibitions by May 26 and June 9, 1980, respectively. The Board further ordered that if the FEIR/FEIS proposed a project not in compliance with the Basin Plan, the discharger was required to petition the Board by June 9, 1980, requesting those exceptions and/or amendments to the Basin Plan needed for the discharger's project to achieve compliance along with the rationale for the exceptions and/or amendments. The order also required that the rationale provide documentation that the discharger's proposed non-complying project provide for a level of environmental protection against the adverse effects of a treatment plant upset equivalent to that which would be provided if a project to comply with the Basin Plan prohibitions was constructed.

4. The SBDA and Environmental Protection Agency Final EIR/EIS, which was adopted July 1980, recommended the alternative of "No Action Beyond Currently Approved Improvements at Treatment Plants". The currently approved improvements at the discharger's treatment plant can meet current Board effluent limits when operating properly, but do not meet Basin Plan prohibitions for:

- a. 10:1 initial dilution
- b. discharge to dead-end sloughs or confined waterways;
- c. discharge to San Francisco Bay south of Dumbarton Bridge;

and may not meet Basin Plan prohibitions of discharge of conservative toxic and deleterious materials above levels achievable by source control, especially for continued discharge at the present location.

5. The SBDA and EPA FEIR/FEIS recommended a "no project alternative" (No Further Action) for the following reasons:

- "1. The degree to which increased dilution resulting from discharge north of the Dumbarton Bridge will mitigate the adverse impacts of toxicants on the biota of the South Bay could not be predicted.
- 2. Modeling studies had not shown that a substantial improvement in dissolved oxygen concentrations would result if the discharges were moved out of the sloughs (Individual Deep Water Discharge Alternative) or out of South Bay (Basin Plan Alternative).
- 3. The viability of future full reclamation is now being investigated in a Regional Wastewater Reclamation Study. Several local small-scale programs are in the planning or implementation stage; however, these programs do not preclude a requirement for disposal of some portion of the flow. The Regional Wastewater Reclamation Study and smaller programs, if implemented, could meet the planning requirements of the San Francisco Bay Basin Plan."

6. The FEIR/FEIS concluded that the No Further Action Alternative would have the following water quality impacts:

- a. Significant impacts can occur to aquatic biota during treatment plant upsets;
- b. Dissolved oxygen level depletions would affect greater areas of Artesian Slough and Guadalupe Sloughs during the dry (summer) and canning seasons than the Basin Plan Alternative;

- c. Relative toxicity levels would be of an order of magnitude higher (400 vs. 50 ml/l) with the No Further Action Alternative vs. the Basin Plan Alternative;
  - d. Continued potential for degradation of sediment quality in sloughs.
7. The FEIR/FEIS proposed further investigations that may allow possible reconsideration of the SBDA and EPA recommended No Project Alternative at some future date:
- a. Further monitoring to fully evaluate the impacts of present treatment and disposal systems against the standard of a level of environmental protection equal to a deep water outfall.
  - b. Investigate regional and local wastewater reclamation.
8. The investigations noted in Finding 7 will not provide mitigation of the significant water quality impacts. The high costs of implementing the Basin Plan Alternative (approximately \$125 million), the lack of historical water quality background data, and the possibility of only marginal water quality improvements make it infeasible at this time to fully mitigate or avoid the significant water quality impacts of the proposed "No Project" Alternative.
9. During the September 1979 and August 1980 treatment process upsets (and for other minor periods) at the San Jose/Santa Clara Water Pollution Control Plant the need was demonstrated for increased reliability of the treatment process along with significant measures to mitigate plant upsets in the South Bay.
10. On September 2, 1980, the SBDA (on behalf of the discharger) submitted a petition and proposed monitoring program requesting the Board consider a deferral of 5 years from implementing the Basin Plan prohibitions. The petition makes clear that the SBDA and discharger feels that:

"... there are no available data that would indicate that the proposed change of discharge location would improve South Bay water and sediment quality; nor can such data be developed from a monitoring program with the disposal systems continuing at their present locations. Both the SBDA and EPA feel that such location change could be detrimental to said quality. Based upon the above factors and the high cost of proposed diversion pipeline, the SBDA expects to request cancellation of this discharge prohibition."

However, SBDA cited that there is a gap in the historic data of the South Bay in biological resources and the relationship between these resources, water quality and advanced waste treatment. Also SBDA believes that data from secondary discharges to the South Bay are not sufficient to demonstrate maintenance or enhancement

of water quality by implementing advanced waste treatment. SBDA proposed the deferral for 5 years from Basin Plan prohibitions while a water quality study is initiated to provide some of the data to fill the gaps. SBDA believes the data will confirm that equivalent protection can be provided with continued discharge at the present sites compared to a sub-regional outfall at Dumbarton Bridge and also in the event of "spills" because the extremities are less sensitive and more resilient to degraded conditions, especially when coupled with adequate contingency plans. Due to the incomplete historical data, the incomplete implementation of the contingency plans, the 1979 and 1980 "spill" at the San Jose/Santa Clara Water Pollution Control Plant, and the lack of data verifying these assertions (especially for the long-term), the Board cannot agree with SBDA's assertions at this time.

11. The Final EIR/EIS and petition are lacking in data sufficient to grant exceptions to the Basin Plan at this time for the following reasons:
  - a. Water quality issues have not been resolved to substantiate maintenance and/or enhancement of beneficial uses. These issues include dissolved oxygen levels, nutrients, toxicity, heavy metals, coliform, and avian botulism.
  - b. Commitments have not been found to enable the implementation of reclamation projects.
  - c. Net environmental benefits presently identified or implemented are inadequate.
  - d. Consistent compliance with NPDES Permit conditions for effluent and receiving waters has not been demonstrated.
  - e. Adequate mitigation measures in case of treatment plant upsets have not been implemented nor a commitment made.
  - f. Enhancement, as presently documented is inadequate, and the potential enhancements are also inadequately documented.
12. The Regional Board recognizes that:
  - a. Some data are still lacking on the water quality impacts of the discharge of improved levels of treated municipal wastewater.
  - b. The cost of implementation of the Basin Plan Alternative is approximately \$125 million.
  - c. The viability of future full reclamation is being investigated by the Regional Water Reuse Study.
  - d. Full implementation of operation, contingency and mitigation measures by the discharger has not been accomplished.

13. A deferral is reasonable to reconsider the implementation of the Basin Plan and Bay and Estuaries Policy prohibitions and to determine the earliest practicable date for compliance, provided the discharger resolves the issues in Findings 11 and 12. As the Permit will expire prior to the end of the 5 year deferral period, it is the intent of the Board to further review the deferral upon the expiration of Order No. 77-94 and to continue the deferral in the new Permit absent new evidence to the contrary.
14. The compliance time schedules in this Time Schedule Order supersede those contained in Provision E.2 and Part A of Order Nos. 77-94 and 79-167 respectively.
15. The Board has notified the discharger and interested agencies and persons of its intent to prescribe revised requirements for the discharger.
16. The Board, in a public meeting, heard and considered all comments pertaining to this discharge.
17. The Board finds that this action is an order to enforce waste discharge requirements previously adopted by the Board. This action is therefore categorically exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to Section 15121 of the Resources Agency Guidelines.

IT IS HEREBY ORDERED, that in accordance with Water Code Section 13300, the discharger shall comply with Prohibition A.1 of Order No. 77-94 in accordance with the following schedule and shall comply with the following interim Requirements until compliance with Order No. 77-94 is achieved:

1. Submit not later than 1 May 1981 a final five year water quality study and biological monitoring program satisfactory to the Executive Officer. The water quality study and monitoring program shall include a time schedule, description and frequency of proposed tasks, and semi-annual status report due 1 July and an annual report due 1 February. The annual report shall provide analysis and interpretation of data along with recommendations for future work (to include modifications).
2. Submit not later than 1 May 1981 a proposal satisfactory to the Executive Officer for a reliability analysis of the entire treatment facility. The reliability analysis shall include as a minimum:
  - a) Analysis of the reliability, separately and as a whole, of at least the following systems:
    - 1) plant operations--staffing, training, maintenance procedures, process control, etc.
    - 2) processes--primary, secondary, tertiary, disinfection, filtration etc.
    - 3) support systems--fuel, power, outside contracts

- 4) repair parts---type, quantity, availability
  - 5) supplies---polymers, chlorine, sulfur dioxide, etc.
  - 6) source control---industrial compliance and spills, domestic impact
- b) Assignment of a probability and consequences of failure of the various categories in a) to include the sub-categories.
  - c) Modifications and costs necessary to improve the reliability and consistency of treatment.
  - d) Time schedule for completion of the analysis and the submission of a time schedule for implementation of cost-effective improvements to the facility to achieve consistent treatment.
3. Submit not later than 1 May 1981 a proposal and time schedule, satisfactory to the Executive Officer, for a technical report that will document the net environmental benefits and existing and potential enhancement of the receiving waters by the continued discharge to San Francisco Bay south of the Dumbarton Bridge.
  4. Submit not later than 1 May 1981 a proposal and time schedule, satisfactory to the Executive Officer, for a technical report on the implementation of cost-effective mitigation measures for treatment plant upsets at the present discharge locations. The objective of the mitigation measures will be to provide a level of environmental protection equivalent to that which would be provided if a project to comply with the Basin Plan prohibitions was constructed.
  5. Submit May 1, 1982 a status report on achieving compliance with Permit Prohibition A.1. (So. Bay discharge). If the discharger desires to request the Board's continuance of the prohibition deferral, the status report will also contain the request, documentation, and rationale for the Board's consideration.
  6. Order No. 79-167 is hereby rescinded.
  7. This Order expires July 1, 1982.

The Board declares that it shall not undertake further enforcement action to bring the discharger into compliance with Prohibition A.1 (So. Bay discharge) as contained in Order No. 77-94 provided:

- a. The discharger complies fully with all terms of the time schedule contained in this Order;
- b. The discharger complies fully with all terms of the permit with the exception of Prohibition A.1 (So. Bay discharge).

- c. Circumstances do not occur which would warrant modification of the permit or time schedule; and
- d. Circumstances do not occur which would warrant an action under Section 504 of the Federal Water Pollution Control Act.

The action taken by this Board pertaining to the time schedule does not preclude the possibility of actions to enforce the permit by third parties pursuant to Section 505 of the Federal Water Pollution Control Act.

I, Fred H. Dierker, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on February 18, 1981.

FRED H. DIERKER  
Executive Officer